



NOAA, NATIONAL WEATHER SERVICE, WEATHER FORECAST OFFICE

Miami, Florida 33165



Miami, FL: May 13, 1997 (AP Photo/Miami Herald)

Wednesday February 1st: **Tornado and Thunderstorm Awareness Day**

Tornadoes and severe thunderstorms are more frequent in South Florida than most people realize. Since 1952, South Florida has averaged a total of 8 tornadoes per year. In fact, since 1996 nine tornadoes of EF-1 or EF-2 intensity on the Enhanced Fujita Scale have affected southeast Florida. Tornadoes are also fairly common in the outer rain bands of tropical cyclones, as was the case in 2008 when an outer band of Tropical Storm Fay produced an EF-2 tornado in Wellington.

After low numbers of South Florida tornadoes in 2009 and 2010, 2011 had a total of 6 reported tornadoes, including one EF-1 and one EF-2 tornado. The tornadoes occurred

on the following dates/locations: January 25/Boca Raton, March 10/Virginia Key, August 2/Tamarac, October 18/Sunrise, Lakeport and Buckhead Ridge. All but the March 10th Virginia Key tornado caused damage, with the EF-1 Tamarac and EF-2 Sunrise tornadoes the strongest and most damaging.

The Sunrise EF-2 tornado occurred on an evening when conditions were highly conducive for tornadoes. Strong wind shear (difference in wind direction and speed with height) along with high levels of moisture and atmospheric instability associated with a non-tropical low pressure system over the Gulf of Mexico set the stage for several supercells which tracked across the southern Florida peninsula during the evening hours. The Sunrise EF-2 tornado tore a path slightly over a mile long and damaged 136 homes, 25 of them severe. Estimated maximum winds were around 125 mph, making it only the third EF-2 tornado in South Florida since 2003. Total estimated damage was \$4 million. Two other tornadoes touched down in Glades County on the evening of October 18th, damaging dozens of homes but without any observed severe damage. These tornadoes were rated as EF-0 on the Enhanced Fujita Scale, with maximum winds in the 75 to 85 mph range.



Sunrise, FL: October 19, 2011 (Photo by NWS Miami staff)

With the exception of the tornadoes of October 18th, 2011 which were spawned by relatively long-tracked supercell thunderstorms, most South Florida tornadoes are

relatively small and short-lived. This means that it is very difficult to give plenty of advance warning. In many cases, only a few minutes of warning are given between the time a warning is issued by the National Weather Service and the tornado touchdown. Nevertheless, even a few minutes of warning can make the difference between life and death. Having a NOAA Weather Radio is a critical component of the warning system. Having a weather radio available to alert of an approaching tornado has saved lives.

IMPORTANT TORNADO SAFETY TIP: When a tornado warning is issued for your area, stay inside and go to an interior room without windows. In a multi-story building, go to the lowest floor.

Severe thunderstorms can also bring strong, non-tornadic winds and large hail which often produce damage. Two examples of this in South Florida in 2011 occurred in June. On June 12th, a severe thunderstorm dumped hail larger than golf balls over western sections of metro Broward County. The hail fell over several car dealerships in the area, prompting “hail sales”. Another severe thunderstorm just three days later in Collier County produced widespread 60 to 80 mph winds from Immokalee to East Naples, toppling numerous trees, power lines and fences.

The National Weather Service issues tornado and severe thunderstorm watches and warning to alert the public. Watches are issued several hours before a potential outbreak of severe weather and the general advice is to remain alert.

When a tornado or severe thunderstorm has been detected either through National Weather Service Doppler weather radar or a trained SKYWARN[™] storm spotter, the National Weather Service Forecast Office in Miami will issue a warning. Warnings are communicated directly from the National Weather Service 24 hours a day, 7 days a week through NOAA All Hazards Radio, the internet at www.weather.gov/southflorida and via local media by way of the Emergency Alert System. Tornado and severe thunderstorm warnings are normally issued within 30 minutes of an expected impact, and people are urged to take immediate protective action due to the imminent nature of the threat.

As part of Florida’s Severe Weather Awareness Week, the National Weather Service and the Florida Division of Emergency Management will conduct a statewide tornado drill on Wednesday, February 1st. Schools, hospitals and businesses throughout South Florida are encouraged to participate by conducting a tornado drill at their individual location, putting their severe weather emergency preparedness plan into effect. This will give school administrators and safety officers an opportunity to see how effective their preparedness plan actually is. If your school or business does not have a severe weather preparedness plan, contact your county office of emergency management or the National Weather Service for assistance.

Here are the plans for the February 1 tornado drill in south Florida:

At 800 AM, the tornado drill will begin when all of south Florida will be considered to be under a test tornado watch. No products will be issued at this time. This is the appropriate time to announce the watch to staff and students, assign coordinators and evacuate tornado vulnerable areas. All participants in the drill are urged to turn on their NOAA Weather radios shortly after 800 am and be ready to activate emergency procedures once the test warning message is received.

At 1010 AM, a test tornado warning will be issued by the National Weather Service Miami Forecast Office for all counties in south Florida including Miami-Dade, Broward, Palm Beach, Collier, Hendry and Glades. NOAA Weather Radio will broadcast the warning using the same routine weekly test code that is used for the weekly tests normally conducted on Wednesdays. Upon receipt of the message, the coordinator will determine the threat.

The watch and warning will terminate at **1030 AM**. No formal notification will be given by the national weather service to end the test warning.